

## ABSTRACT

A spectrum analyzer is described which comprises a mixer for mixing the conjugate complex input signal  $v^*(t)$  into a base band signal  $x(t)$ , and a resolution filter for narrow-band filtering the base band signal. The resolution filter has a complex, discrete impulse response using a variation parameter  $k_0$  set to compensate for the frequency overshoot determined by the group delay of the resolution filter.